UNITED SCRAP LEAD
TROY, OHIO

SECOND FIVE-YEAR REVIEW REPORT

SEPTEMBER 2006

Approved by: **Date:**

Richard C Karl

9-22-06

Richard C. Karl
Director, Region 5 Superfund Division
United States Environmental Protection Agency

United Scrap Lead
Second Five-Year Review Report

Table of Contents

Tables

Attachments

List of Acronyms and Abbreviations

ARARs	Applicable or Relevant and Appropriate Requirements
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
FS	Feasibility Study
MCL	Maximum Contaminant Level
NCP	The National Contingency Plan
OAC	Ohio Administrative Code
Ohio EPA	Ohio Environmental Protection Agency
PRPs	Potentially responsible parties
RA	Remedial Action
RAOs	Remedial Action Objectives
RI	Remedial Investigation
RCRA	Resource Conservation and Recovery Act
ROD	Record of Decision
Site	United Scrap Lead Superfund Site
U.S. EPA	United States Environmental Protection Agency

Executive Summary

The remedy for the United Scrap Lead Superfund Site in Troy, Ohio included the following: excavation, stabilization, and off-Site transportation of lead contaminated soils, battery casings, and debris; restoration and vegetation of excavated areas; installation of a septic tank system; installation of new residential wells; and groundwater monitoring. The Site achieved construction completion with the signing of the Preliminary Close Out Report On December 10, 1999. The trigger for this five year review was the signature date of the first five year review on September 27, 2001.

The assessment of this five year review found that the remedy was constructed in accordance with the requirements of the interim and final Record of Decisions (RODs). However, despite intensive efforts on the part of EPA enforcement staff, the institutional controls remain to be implemented. The immediate threats have been addressed and the remedy is protective in the short term: however, in order to be protective in the long-term, institutional controls will have to be implemented at the Site.

Five-Year Review Summary Form

SITE IDENTIFICATION		
Site name *(from WasteLAN)*: United Scrap Lead		
EPA ID *(from WasteLAN)*: OHD018392928 05H5		
Region: 5	**State:** Ohio	**City/County:** Troy / Miami

SITE STATUS	
NPL status: ☒ Final ☐ Deleted ☐ Other (specify)	
Remediation status (choose all that apply): ☐ Under Construction ☐ Operating ☒Complete	
Multiple OUs ?* ☒ YES ☐ NO	**Construction completion date:** 12/10/1999
Has site been put into reuse? ☐ YES ☒ NO	

REVIEW STATUS	
Lead agency: ☒ EPA ☐ State ☐ Tribe ☐ Other Federal Agency	
Author name: L.Hill	
Author title: Remedial Project Manager	**Author affiliation:** U.S. EPA
Review period: 11/08/2005 to Signature Date of this five-year review	
Date(s) of site inspection: 08/17/2006	
Type of review: ☒ Post-SARA ☐ Pre-SARA ☐ NPL-Removal only ☐ Non-NPL Remedial Action Site ☐ NPL State/Tribe-lead ☐ Regional Discretion	
Review number: ☐ 1 (first) ☒ 2 (second) ☐ 3 (third) ☐ Other (specify)	
Triggering action: ☐ Actual RA Onsite Construction at OU # ☐ Actual RA Start at OU#____ ☐ Construction Completion ☒ Previous Five-Year Review Report ☐ Other (specify)	
Triggering action date *(from WasteLAN)*: September 27, 2001	
Due date *(five years after triggering action date)*: September 27, 2006	

* ["OU" refers to operable unit.]
** [Review period should correspond to the actual start and end dates of the Five-Year Review in WasteLAN.]

Five-Year Review Summary Form

Issues:

A review of data covering the past five years indicates the remedy is functioning as intended. Site security issues identified in 2004 appeared to be resolved during the most recent Site visit in August 2006. No compliance issues were identified during the most recent Site visit in 2006. Further periodic Site visits should be conducted to ensure Site security measures continue to be effective.

Recommendations and Follow-up Actions:

Recommendations and follow-up actions for the Site include the following: institutional controls should be implemented.

Protectiveness Statement(s):

The removal of contaminated soil and battery casings portion of the remedy selected for the Site appears to be operating as described in the Amended ROD; however, the institutional controls, required in the Amended ROD, remain to be implemented. The remedy is expected to be protective of human health and the environment and exposure pathways that could result in unacceptable risks are being controlled. The Site remedy is protective of human health in the short-term; however, for the remedy to be protective in the long-term, institutional controls need to be implemented at the Site. EPA will explore with the Department of Justice the feasibility of asking the judge to name a Receiver who would be empowered to enter into a UECA covenant at the Site.

I. Introduction

The purpose of the five-year review is to determine whether the remedy at a site is protective of human health and the environment. The objective of this five-year review report is to summarize the protectiveness of the remedy, identify issues of concern, and to provide recommendations for addressing those issues. U.S. EPA prepared this five-year review pursuant to Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) §121 which states:

If the President selects a remedial action that results in any hazardous substances, pollutants, or contaminants remaining at the site, the President shall review such remedial action no less often than each five years after the initiation of such remedial action to assure that human health and the environment are being protected by the remedial action being implemented. In addition, if upon such review it is the judgment of the President that action is appropriate at such site in accordance with section [104] or [106], the President shall take or require such action. The President shall report to the Congress a list of facilities for which such review is required, the results of all such reviews, and any actions taken as a result of such reviews.

U.S. EPA also prepared this five-year review pursuant to The National Contingency Plan (NCP); 40 CFR §300.430(f)(4)(ii) which states:

> *If a remedial action is selected that results in hazardous substances, pollutants, or contaminants remaining at the site above levels that allow for unlimited use and unrestricted exposure, the lead agency shall review such action no less often than every five years after the initiation of the selected remedial action.*

This is the second five-year review for the Site. The triggering action for this statutory review is the date of the first five-year review for the Site. The first five-year review was signed on September 27, 2001. These reviews are required due to the fact that hazardous substances, pollutants, or contaminants remain at the Site above levels that allow for unlimited use and unrestricted exposure.

II. Site Chronology

Table 1

Date	Event
1946	United Scrap Lead commenced battery reclamation operations.
1979	Ohio EPA became aware of contaminated Site conditions.
1983	United Scrap Lead ceased battery reclamation operations.
September 8, 1983	Site proposed for NPL listing.
September 21, 1984	Site listed on NPL.
1985	U.S. EPA conducted an emergency removal at the Site.
January 1986	Remedial Investigation/Feasibility Study commenced.
February 1988	Remedial Investigation completed.
August 1988	Feasibility Study completed.
September 16, 1988	U.S. EPA issued the 1st ROD.
1992	U.S. EPA abandoned the innovative treatment technology component of the first ROD.
August 1992	U.S. EPA commenced remedial action activities pursuant to the 1988 ROD.
March 1995	First phase remedial actions completed.
July 27, 1997	U.S. EPA issued an Amended ROD.
June 1999	Remedial action activities commenced pursuant to the final Amended ROD.
November 30, 1999	U.S. EPA and Ohio EPA conducted the final remedial action inspection.
October 23, 2000	U.S. Army Corps of Engineers conducted a Site visit.
September 27, 2001	First Five Year Review signed.
August 17, 2006	Site visit conducted in support of the 2nd five-year review.

III. Background

Physical Characteristics

The United Scrap Lead Site operated as a lead battery reclaiming facility from 1946 to 1983. The Site is located in the City of Troy, Concord Township, Miami County in Ohio (Figures 1 and 2) in a lightly populated area. The United Scrap Lead Site is located on County Road 25-A. The Site occupies about 25 acres of land, of which eight acres were the scope of the remedial action conducted in 1999. The lands north and south of the site are farm fields. The northern boundary of the Site is bordered by a gravel road. The east edge is bordered by wooded areas and railroads. The west edge is bordered by four residential /business properties and by County Road 25-A.

Land and Resource Use

The topography and surficial geology of the Troy, Ohio, area are dominated by glacial deposits. Bedrock beneath Troy consists of calcareous shales with thin limestones. The Site is covered by a thin mantle of cohesive soils overlying sand and gravel deposits containing variable amounts of silt, clay and cobbles. The Site lies within the flood plain of the Great Miami River. Groundwater elevations are normally 3 to 10 feet below the ground surface, except during periods of heavy precipitation, when flooding occurs. The Miami Conservancy District is responsible for preserving flood control along the Miami River Basin. The Site is located in the 10, 50, 100, and 500 year flood plains as defined by the Miami Conservancy District. The southeastern portion of the Site is frequently under water after significant rainfall events. The surface Site drainage is generally in a southeasterly direction towards a culvert that discharges in a channel that forms the southern boundary of the Site.

History of Contamination

From 1966 through 1980, United Scrap Lead separated batteries from casings, severed the tops, collected the lead plates for reprocessing, and then disposed of the tops and casings on-Site. The resulting acid was originally discharged directly to an acid seepage field. In 1972, the acid was collected, neutralized with ammonia and discharged through the acid seepage field. Ohio Environmental Protection Agency (Ohio EPA) first became concerned about the Site conditions in 1979 when the State found levels of cadmium and lead in the groundwater which exceeded the interim Federal Primary Drinking Water Standards. The Ohio EPA required the United Scrap Lead company to comply with the State waste disposal regulations and dispose the chipped battery casings off-Site. Lead reclamation operations ceased in 1980 but resumed by 1982 when the Site was leased to new individuals. In 1983, lead battery reclamation activities ceased permanently.

Initial Response

On September 8, 1983, the Site was proposed for listing on the National Priorities List and was listed on September 21, 1984. U.S. EPA conducted an Emergency Removal action at the United Scrap Lead Site in 1985 to remove and relocate contaminated soils and waste materials away from the neighboring residences and the roadway. From January 1986 to August 1988, U.S. EPA conducted the RI/FS for the Site. The goals of the RI were the following: to identify sources of contamination; to characterize the contamination at the Site; and, to fully determine the nature and extent of the threat, if any, to the public health or welfare or the environment caused by the release or threatened release of hazardous substances, pollutants, or contaminants from the United Scrap Lead Site. The RI was completed in February 1988. The goals of the FS were to fully evaluate alternatives for the remediation, if any, to prevent or mitigate the migration or the release or threatened release of hazardous substances, pollutants, or contaminants from the Site. The FS was completed in August 1988.

Basis for Taking Action

Contaminants

Based on the RI, the primary contaminants of concern were lead and arsenic in the soil and lead in battery casings. Lead and arsenic concentrations in the soil exceeded federal standards ranging from 42 to 377,000 mg/kg and 21 to 444 mg/kg, respectively.

IV. Remedial Actions

Remedy Selection

On September 16, 1988, U.S. EPA issued a Record of Decision (ROD) for the Site. An Amended ROD was issued subsequently on June 27, 1997 after the completion of a new human health and ecological risk assessment. These RODs are discussed in more detail below.

In July 1991, the U.S. EPA filed a complaint against the potentially responsible parties (PRPs), (United States v. Atlas Lederer Co., et al., now referred to as, United States v. A-L Processors), to recover costs associated with the cleanup of the Site. By Order dated December 2, 1991, the Court stayed all further proceedings in the Atlas Lederer matter to allow the parties to explore settlement. The stay resulted in part from the PRPs'/Defendants' desire to explore other remedial technologies. In 1992, U.S. EPA decided to abandon the innovative technology set forth in the 1988 ROD (discussed below). The lawsuit remained stayed while the Agency explored other remedial options. In September 1994, the U. S. EPA issued a Proposed Plan for an amendment to the ROD. The proposed amendment recommended a different remedy for the battery casing chips

and contaminated soils, in lieu of the innovative treatment remedy set forth in the 1988 ROD. This proposed plan was never finalized, as negotiations with the PRPs on the remedial action were on-going during this time period.

On September 19, 1996, the PRPs submitted a revised risk assessment for the site, based on a future commercial/industrial land use scenario. Based upon the revised risk assessment, U.S. EPA adopted the 1997 Amended ROD. The RD/RA Decree required the Owner/Operator Defendants to implement institutional controls at the Site. Subsequent cost recovery decrees were entered in 2000, 2002, and 2004 with various PRPs who had sent hazardous substances to the Site. On September 12, 2001, the judge issued a finding of liability against most of the recalcitrant PRPs remaining in the cost recovery litigation, and on September 2, 2003, the judge found that these parties were jointly and severally liable for the United States' remaining costs at the Site. The United States has also filed a separate action against various PRPs who are alleged to have fraudulently transferred assets from companies which did business with the United Scrap Lead Company. On June 30, 2006, the Department of Justice filed a legal memorandum which asked the judge to order the remaining recalcitrant PRPs to pay approximately $8 million in EPA's past unpaid response costs. The cost recovery litigation, the separate "fraudulent asset transfer" litigation and settlement negotiations are continuing.

Record of Decisions

The original 1988 ROD called for an innovative treatment technology to treat (e.g., wash) contaminated battery casings and soils to achieve a 500 mg/kg lead cleanup level. This cleanup standard would have allowed for virtually unrestricted Site use. Construction plans for washing soils and washing battery casings showed that a pilot plant would cost in excess of $10 million. To implement a full scale project, the costs would be in excess of $100 million. This technology proved to be technologically and economically infeasible, since the technology was not proven beyond the pilot scale. Therefore, U.S. EPA elected to withdraw or abandon the soil and battery casing washing component and implement the remaining major portions of the original ROD as follows:

- excavation of certain off-Site soils;
- backfilling excavated areas; vegetation;
- de-watering of sediments from the McKaig Ditch;
- decontamination and off-Site disposal of debris;
- installation of new residential wells;
- installation of a new septic tank system;
- monitoring of groundwater and monitoring of surface waters;
- deed restrictions.

The already-implemented portions of the original ROD were reaffirmed in the Amended ROD.

Once the innovative treatment technology called for in the 1988 ROD was determined not to be viable, U.S. EPA re-assessed the remedial action objectives at the Site, and determined that some type of containment remedy would be protective. In support of this remedial action objective change, in September 1996 the PRPs completed the revised risk assessment discussed above, which included a commercial/industrial future land use scenario. U.S. EPA, in consultation with Ohio EPA, approved the revised risk assessment and established a new industrial Site cleanup goal of 1,550 mg/kg lead in soils. This Site cleanup goal was adopted in the June 27, 1997 final Amended ROD.

The primary remedial objective of the 1997 Amended ROD was to remove the battery casings and most of the contaminated soil from the Site, so they would not be a continuing source of potential risk to people and the environment. Avoiding the migration of lead through flooding events was also an important consideration. Thus, the 1997 Amended ROD required the excavation, treatment, transportation, and disposal of lead contaminated soils and battery casings and clean backfill of excavated areas. Other major components of the Amended ROD included groundwater monitoring, re-vegetation, fencing, and institutional controls. Costs to implement the Amended ROD were estimated at $16.7 million.

Remedy Implementation

In August 1992, in order to remove the source of lead from critical residential and off Site areas, the U.S. EPA commenced the implementation of the remaining original ROD components through an inter-agency agreement with the Army Corps of Engineers. Completed in March 1995, these activities also aimed to minimize the impact of the source on the environment until the final remedy was completed. The risk reduction goals accomplished during this initial remedial action were incorporated into the 1997 Amended ROD. The following activities were conducted during this initial remedial action:

- Excavation of soils. Contaminated soils located off-Site with lead concentrations that exceeded 210 mg/kg were removed and stockpiled with on-Site soil materials. These off-Site soils were removed from the following areas: the backyard of a nearby residence; the lot of a used car dealership; and along the Site access road.

- Replacement of off-Site soils. The excavated areas were backfilled with clean soils, graded, and vegetated.

- Cover soils and battery casing chips. Stockpiled soils and battery casing chips were covered with dust control tarpaulins.

- Installation of residential well. A new residential well was installed for an adjacent residence and the former United Scrap Lead office building.

- Decontamination, removal, and disposal. Two on-Site buildings were decontaminated, removed, and disposed off-Site. On-Site drums and debris were removed and disposed off-Site.

- Installation of septic tank system. A new septic tank system was installed for the United Scrap Lead office property.

In June 1999, remedial action activities commenced pursuant to the final Amended ROD. These remedial activities were completed on November 30, 1999. Entact performed the remedial action for the PRPs. U.S. EPA oversight was performed by the Army Corps of Engineers from the Huntington and Omaha Districts.

Nearly 62,000 cubic yards of battery casing debris were excavated, treated, and shipped off-Site. Approximately 11,500 cubic yards of soil were excavated and treated. Approximately 3,000 cubic yards of the excavated soils did not require treatment and were utilized as clean backfill for the Site. Soils not meeting the cleanup standards were re-treated and re-sampled until the cleanup standards and landfill disposal requirements were achieved. Also, one metal building was demolished and the scrap metal was transported to a Subtitle D landfill. Some topsoil was imported to grade the remediated areas and re-vegetation activities occurred. The remediated areas were re-vegetated with a mixture of seed consisting of 30% Perennial Ryegrass, 40% Kentucky 31 Fescue, and 30% Kentucky Bluegrass. Excavated materials were transported via truck to Jay County Landfill in Portland, Indiana.

To assist in determining the required depth of excavation, the x-ray fluorescence (XRF) screening devices were utilized during the remedial action. This allowed the contractors to excavate soils to a certain depth, then use the XRF to get an immediate reading of the total lead concentration in the soils. If soils exceeded 1,500 mg/kg lead, the excavation depth was increased until this cleanup criterion was achieved. Soil samples were collected and also verified by laboratory analysis. (Refer to Attachment 2, "Verification Grid System.")

Soils utilized for grading were sampled and analyzed for the following compounds: volatile organic compounds; pesticides; polychlorinated biphenyls; total petroleum hydrocarbons; and metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver). Sample analysis showed the compounds were below the detection limits for all compounds except barium. The barium concentration was 218 mg/kg which was similar to surrounding concentrations.

Seven residential and four groundwater monitoring wells were sampled in accordance with the Phase I Groundwater Monitoring Program Plan. The residential wells (RW) that were

sampled were as follows: Irwin Chrysler-Plymouth (RW1); Ishmael (RW2); Burton Car Lot (RW3); Ryan Bait Shoppe (RW4); Noble (RW5); Grooms (RW6); and Jordan (RW7). All wells were sampled for lead and arsenic. The results of such sampling showed that the Federal Primary Drinking Water Standards for arsenic or lead were not exceeded. The results of the groundwater monitoring sampling are discussed in more detail below.

In addition, surface water monitoring and sampling were conducted during the remedial action. This was done to monitor the releases of lead to the McKaig ditch as a result of the materials handling at the Site. Storm water runoff control measures were implemented such as installing a straw/hay bale unit directly up-gradient of the McKaig ditch which reduced the impacts from the Site to the McKaig ditch.

Air monitoring activities were performed to monitor particulate matter and lead concentrations throughout the remedial action. Ambient Air Quality Standards were not exceeded for lead or particulate matter during the remedial action.

System Operations and Operation and Maintenance

U.S. EPA required the PRPs to develop a groundwater monitoring plan for the Site. The purpose of this plan was to ensure that the groundwater was not adversely impacted by the past Site conditions. The PRPs developed the plan and incorporated it into the final "Operations and Maintenance Plan" for the Site dated February 2000. The plan required limited groundwater monitoring sampling for the Site. U.S. EPA approved this limited monitoring program for the following reasons: the battery casings and lead-contaminated soils were excavated, transported off-Site, and disposed off-Site; and, historical groundwater monitoring and residential well sampling since 1979 did not show exceedances of the Federal Primary Drinking Water Standard for lead. Additionally, U.S. EPA agreed that if the groundwater monitoring results showed that the Site conditions posed no adverse impacts to the groundwater or to the residential wells, then the groundwater monitoring could be terminated after the April 2000 sampling event and the groundwater monitoring wells could be closed. The PRPs have completed Phase I and Phase II of the Groundwater Monitoring Program Plan. Groundwater sampling events were conducted in July 1999 and April 2000. Results of these sampling events are detailed in the "Semi-annual Groundwater Sampling Report," dated August 16, 1999, and the "Phase II Groundwater Sampling Report," dated July 6, 2000. The groundwater samples were analyzed for the following parameters: total lead; total arsenic; dissolved lead; dissolved arsenic; oxidation reduction potential; specific conductivity; temperature; and pH. The metal analyses were performed using EPA Method 6020A.

In July 1999, monitoring wells MW-6, MW-8, MW-10, and MW-16 were sampled as part of the Phase I groundwater monitoring program plan. The groundwater monitoring sampling results were in the same range and order of magnitude as the results identified in earlier sampling events and did not show any exceedances of the Federal Primary Drinking Water

Standards for arsenic and lead. The off-Site residential well results in July 1999 showed that arsenic and lead were non-detectable in all residential wells except RW-7. Residential well RW-7 showed a total lead concentration of 0.0018 mg/L which is below the Federal Primary Drinking Water Standard.

During the April 2000 sampling event, up-gradient monitoring well MW-10 and down-gradient monitoring wells MW-6, MW-8, and MW-16 were sampled and compared to the 0.05 mg/L arsenic and the 0.015 mg/L lead Federal Primary Drinking Water Standards. All metals results for MW-10 and MW-16 were non-detectable for both total and dissolved arsenic and lead. Total arsenic and dissolved arsenic concentrations were 0.005 mg/L and 0.0074 mg/L, respectively, for MW-6. Total lead and dissolved lead concentrations were 0.0013 mg/L and 0.0010 mg/L, respectively, for MW-6. Duplicate results for MW-6 were as follows: 0.0085 mg/L total arsenic; 0.0066 mg/L dissolved arsenic; 0.0043mg/L total lead; and, less than 0.0010 mg/L dissolved lead. The groundwater analyses were similar for MW-8. Total and dissolved arsenic concentrations were 0.0078 mg/L and 0.0050 mg/L, respectively. Total and dissolved lead concentrations were 0.0022 mg/L and less than 0.0010 mg/L, respectively. Groundwater flow was to the southeast. The hydraulic gradient across the Site was approximately 0.0025 feet/feet. Groundwater elevations ranged from 806.28 to 808.5 feet above mean sea level.

Sampling and analysis indicate that lead is not migrating with the groundwater, and the removal of the lead source has minimized any potential future impacts to the groundwater. Also, past sampling events since 1979 showed that lead and arsenic concentrations from groundwater monitoring wells and residential wells were non-detectable or below the Primary Drinking Water Standards for lead and arsenic. Therefore, groundwater monitoring was terminated at the Site.

V. Progress Since the Last Five-Year Review

Since the last five-year review, the Site continued to operate in accordance with the provisions of the Amended ROD. The protectiveness statement from the last review stated that the remedies selected for this Site remained protective of human health and the environment and exposure pathways that could result in unacceptable risks were controlled. The protectiveness statement also stated that no residents have been impacted by off-Site groundwater contamination (based on post remedial action groundwater monitoring data). The required monitoring program has been completed and has satisfied the goals of the Amended ROD. The recommendations cited in the last five-year review stated that the lead risk assessor will re-evaluate the risk for the adolescent female trespasser scenario and U.S. EPA may impose additional operation and maintenance requirements to control Site access if the risk is determined to be unacceptable. Other recommendations required U.S. EPA, the PRPs, and the State of Ohio to finalize institutional controls for the Site. U.S. EPA has made efforts to address the follow-up items. EPA has not imposed additional operation and maintenance requirements

for the Site since, among other reasons, the most recent Site inspection revealed that the Site security has improved. However, the Site security should be maintained, including periodic inspections at the Site. With respect to institutional controls, these measures have not been implemented but are expected to be completed by 2008.

VI. Five-Year Review Process

Administrative Components

The United Scrap Lead Five-Year Review team was led by Lolita Hill of U.S. EPA, Remedial Project Manager for the United Scrap Lead Site. Rafael Gonzalez, of Public Affairs, and Sherry Estes, of the Office of Regional Counsel, participated in the Five Year Review process. Nita Nordstrom of the Ohio EPA participated in the Five Year Review process for the support agency.

From November 8, 2005 to September 2006, the review team established the review schedule which included the following components:

- Document Review;
- Data Review;
- Community Involvement;
- Local Interviews;
- Site Inspection;
- Five-Year Review Report Development and Review

The public was notified of the five-year review in August 2006 through the local news media as detailed below.

Community Involvement

The public was notified of the five-year review on August 13, 2006, through an article, prepared by Rafael P. Gonzalez, in the Troy Daily News, a newspaper distributed in the Troy, Ohio area.

Document Review

This five-year review consisted of a review of relevant documents such as the Record of Decision, the Amended Record of Decision, remedial action reports, and the first five-year review for the Site.

Data Review

Groundwater Monitoring

As discussed in an earlier section of this review, the last rounds of groundwater monitoring were conducted in April 2000. U.S. EPA agreed that if the groundwater monitoring results showed that the Site conditions posed no adverse impacts to the groundwater or to the residential wells, then the groundwater monitoring could be terminated after the April 2000 sampling event and the groundwater monitoring wells could be closed. The April 2000 sampling event showed that the Federal Primary Drinking Water Standards of 0.05 mg/L arsenic and 0.015 mg/L lead were not exceeded for arsenic and lead in any of the groundwater monitoring wells. Hence, groundwater monitoring was discontinued for this Site and the groundwater monitoring wells were abandoned.

Site Inspection

An inspection of the Site was conducted on July 28, 2004 by Ms. Nita Nordstrom of the Ohio EPA. According to the inspector, access to the Site was secure in most areas except for one area on the south side of the Site where the barbed wire and fence were damaged. The hole appeared to be large enough to allow entry by children, possibly adults, and smaller animals. There were no apparent signs of trespassing such as dirt bikes. The owner of the adjacent property when interviewed stated that deer sometime enter the property. The Site gates were locked and the "no trespassing" signs were located in areas where they could be easily viewed.

After subsequent repairs to the site fence, another Site inspection of the Site was conducted on August 17, 2006 by Ms. Nita Nordstrom of Ohio EPA. The inspection was conducted in support of the five-year review to assist in determining current site conditions and the protectiveness of the remedial action. During this inspection, there were no major issues noted which related to the protectiveness of the Site remedy. The inspector noted that the Site fence and gates all appeared to be secure without exception. The inspector did not see any signs of trespassing (e.g., dirt bike tracks, etc.). The inspector had not received any telephone calls or complaints from the adjacent home or business owners. The inspector noted that the Site was secure and all gates were locked and the signs were located in areas where they could easily be seen although vegetation overgrowth obscured the signs on the north side of the property. Photos of the Site were taken at the time of the inspection and are included as part of this review.

Interviews

At the time of the inspection the inspector was not able to interview any of the residents or property owners. However, the inspector noted that none of the residents have contacted the State or local agencies regarding problems associated with the Site or the remedy.

Institutional Controls

The ROD required the implementation of institutional controls for the Site. Institutional controls are non-engineered instruments, such as administrative and legal controls, that help to minimize the potential for exposure to contamination and that protect the integrity of the remedy. Institutional controls are required to assure long-term protectiveness for any areas which do not allow for unlimited use or unrestricted exposure (UU/UE).

At the Site, institutional controls are necessary to protect against exposure to the remaining lead which was left in the soil. Although the risk assessment which supported EPA's remedy decision would allow the re-use of the Site for commercial/industrial uses, there is too much lead remaining in Site soils for the Site to be used for residential purposes. The Site groundwater also should not be used as a source of drinking water. In order to prevent the Site from being used in a manner which is inconsistent with the cleanup and to fully carry out the requirements of the Amended ROD, EPA needs to implement institutional controls and record them in the chain of title for the property which encompasses the Site.

In December 2004, the State of Ohio passed its version of the Uniform Environmental Covenants Act (UECA), which had the potential to simplify institutional controls implementation at the Site. As Settling Defendant under the 1998 RD/RA Consent Decree, Charles Bailen, as president of the United Scrap Lead, Inc., had a duty under the Consent Decree to help implement institutional controls, and was willing to sign a UECA covenant. However, he died in December 2005, before the covenant could be executed. With his death, there is no one alive who was an operator of United Scrap Lead, Inc., a dissolved corporation. The Site enforcement counsel is seeking the assistance of the U.S. Department of Justice to ascertain possible methods of implementing institutional controls at the Site, given the current situation. One possibility which is being explored is asking the judge to appoint a Receiver for the Site, who would have the power to sign a UECA covenant with the needed restrictions. The UECA covenant will include maps in both paper and GIS format showing the area where institutional controls are required.

During the 2006 inspection, the Ohio EPA inspector did not observe any Site uses that are incompatible with the restrictions that need to be implemented. The Site is vacant, and there was no indication that the Site groundwater is being used as a drinking water source. While EPA's inability to implement institutional controls has not affected protectiveness in the short term, it would have the potential to impact them in the long-term.

VII. Technical Assessment

Question A: Is the remedy functioning as intended by the decision documents?

The review of documents, ARARs, risk assumptions, and the results of the Site inspection indicate that, with the exception of EPA's inability to implement institutional controls, the remedy is functioning as intended by the ROD and Amended ROD. The remedy will be fully functioning as intended by the Amended ROD once the institutional controls are implemented.

Question B: Are the exposure assumptions, toxicity data, cleanup levels, and remedial action objectives (RAOs) used at the time of remedy selection still valid?

There have been no changes in the physical condition of the Site that would affect the protectiveness of the remedy.

Changes in Standards and Things to Be Considered

As the remedial work has been completed, ARARs or performance standards cited in the ROD have been achieved. There have been no major changes in these ARARs and no new standards affecting the protectiveness of the remedy.

Changes in Exposure Pathways, Toxicity, and Other Contaminant Characteristics

The exposure assumptions used to develop the Human Health Risk Assessment included both current exposures (older child trespasser, adult trespasser) and potential future exposures (young and older future child resident, future adult resident and future adult worker). More recent research considers the uptake of lead by adolescent girls (and the possibility that this lead might damage a fetus in a future pregnancy). U.S. EPA considers this research, and the adoption of this research into the Agency's risk assessment methodology by the Technical Review Workgroup for Lead, to be an important "To Be Considered." Although the 1996 risk evaluation completed by the PRPs did consider the risk to trespassers, young trespassers at the Site might actually go on-Site, and thus be exposed to the residual levels of on-Site lead, more frequently than assumed in the PRPs' risk evaluation. Therefore, because of new information made available to the Agency regarding trespassing at the Site and the new research regarding the lead uptake of adolescent girls, Ohio EPA conducted a Site visit in August 2006 to, among other things, try to ascertain how frequently these young people might be exposed. The inspector's report included photos of the Site which showed that the Site was secured by a fence with 3 lines of barbed wire. There were no holes observed in the fence. All gates to the Site were locked with warning signs posted and visible. The Site was well vegetated, and in some areas, overgrowth of vegetation was observed. There were no signs of trespass, bike tracks or trails at the Site. It is clear from the inspector's findings that, with continued

maintenance of the fence and other Site security measures, the likelihood of the trespass scenario is highly unlikely.

Question C: Has any other information come to light that could call into question the protectiveness of the remedy?

There is no new information has come to light which could call into question the protectiveness of the remedy.

Technical Assessment Summary

According to the information reviewed, including the Site inspection, upon implementation of the institutional controls, the remedy will be functioning as intended by the ROD and Amended ROD. There have been no changes in the physical conditions of the Site that would affect the protectiveness of the remedy. ARARs for soil contamination cited in the ROD have been met. While there was a change in the toxicity factor for young teenage female trespassers, there was a corresponding decrease in any potential exposure scenario due to improvements in overall Site security. There is no other information that calls into question the protectiveness of the remedy.

VIII. Issues

No issues were identified concerning remedy protectiveness. However, the Site security should be maintained, including periodic inspections of the Site.

Table 2.

Issue	Currently Affects Protectiveness(Yes/No)	Affects Future Protectiveness(Yes/No)
Site security should be maintained.	No	Yes

IX. Recommendations and Follow-up Actions

The performance standards for the Site have been achieved.

Table 3. Recommendations and Follow-up Actions

Issue	Recommendations Follow-up Actions	Party Responsible	Oversight Agency	Milestone Date	Affects Protectiveness? (Yes/No)	
					Current	Future
Institutional controls	Site institutional controls should be set in place.	U.S. EPA & PRPs	U.S. EPA & Ohio EPA	09/30/2008	No	Yes

X. Protectiveness Statement

The Site remedy is protective of human health in the short-term; however, for the remedy to be protective in the long-term, institutional controls need to be implemented at the Site. EPA will explore with the Department of Justice the feasibility of asking the judge to name a Receiver who would be empowered to enter into a UECA covenant at the Site.

XI. Next Review

The next five-year review for the United Scrap Lead Site will be due September 2011, five years from the date of this review.

ATTACHMENT 1

SITE LOCATION MAPS

Site Location

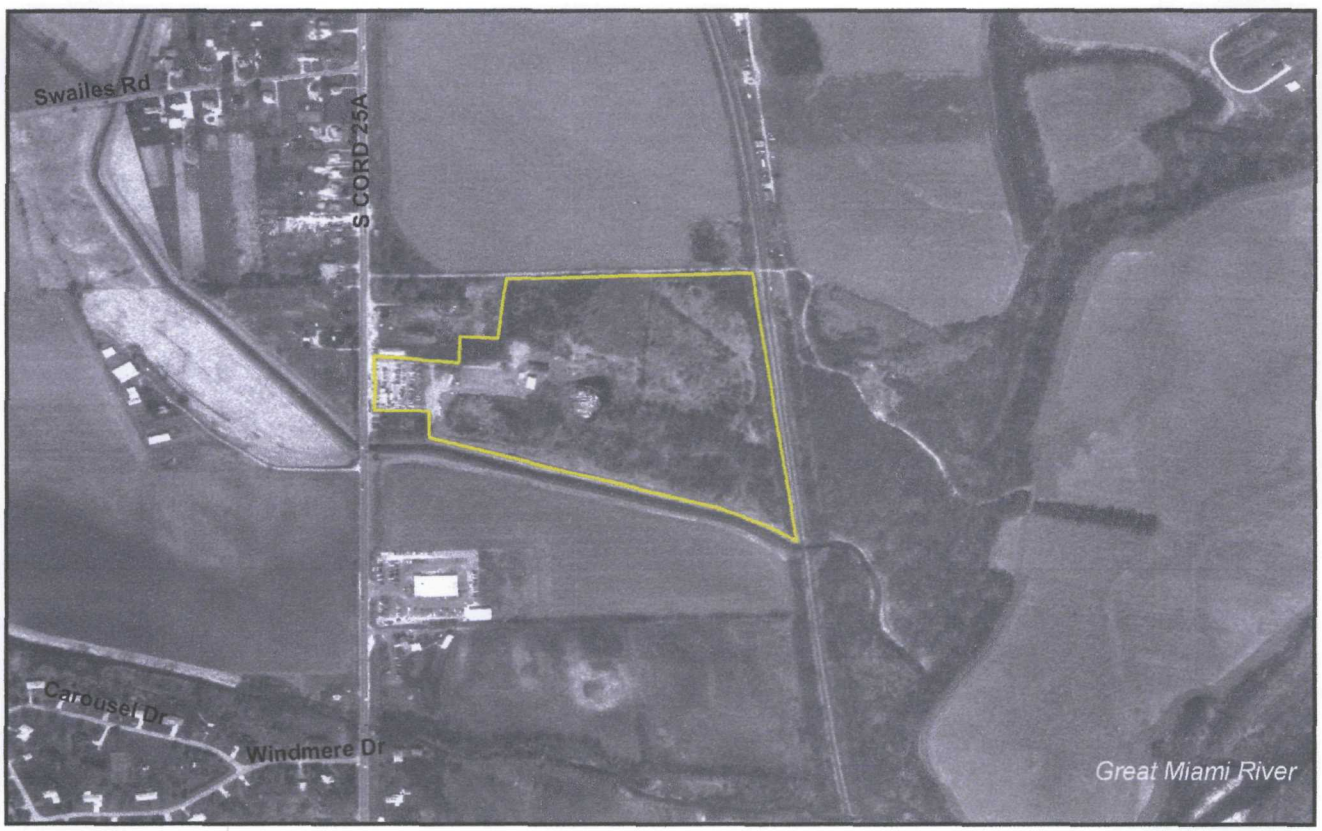
Superfund
U.S. Environmental Protection Agency

United Scrap Lead
Miami County, OH

OHD018392928

State

County



Site

Figure 1

Created by Sarah Backhouse
U.S. EPA Region 5 on 8/23/06

Legend
United Scrap Lead Site

N

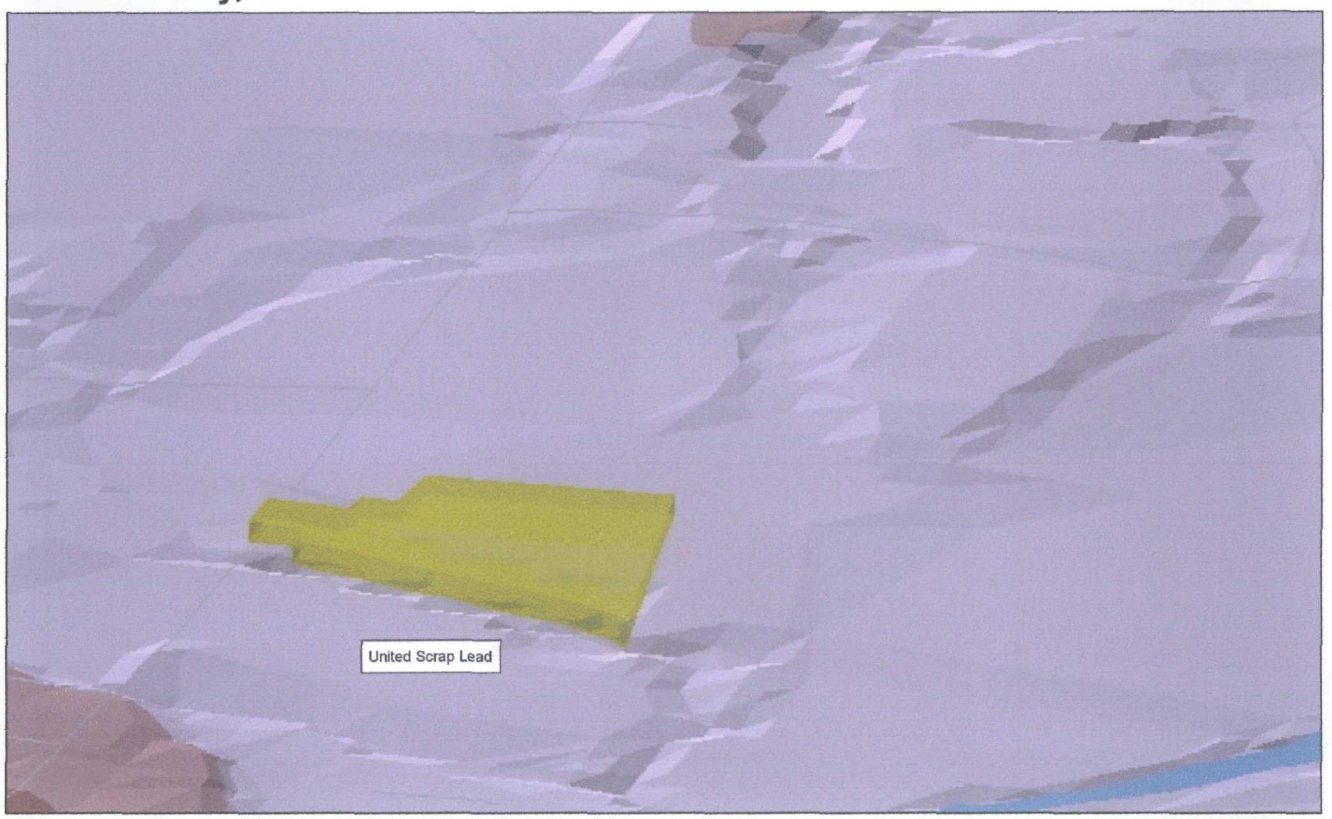
GEOS
Groundwater Evaluation and Optimization System

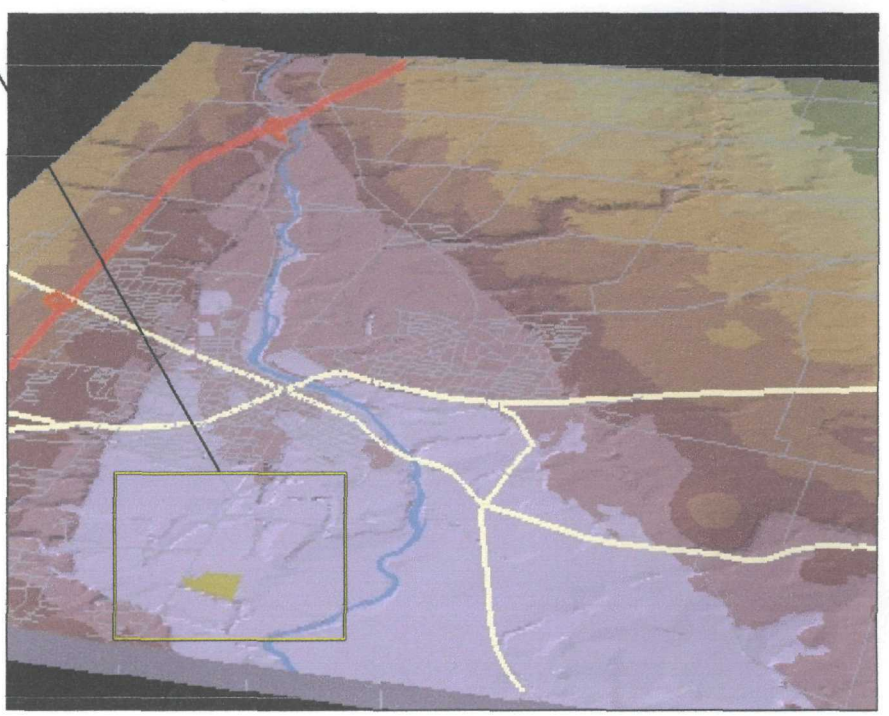
3D Surface Terrain Model

Superfund
U.S. Environmental Protection Agency

United Scrap Lead
Miami County, OH

OHD018392928





Elevation Feet

- 998 - 1022
- 974 - 998
- 950 - 974
- 926 - 950
- 901 - 926
- 877 - 901
- 853 - 877
- 829 - 853
- 805 - 829

N

GEOS
Groundwater Evaluation and Optimization System

Figure 2

Created by Sarah Backhouse
U.S. EPA Region 5 on 8/24/06

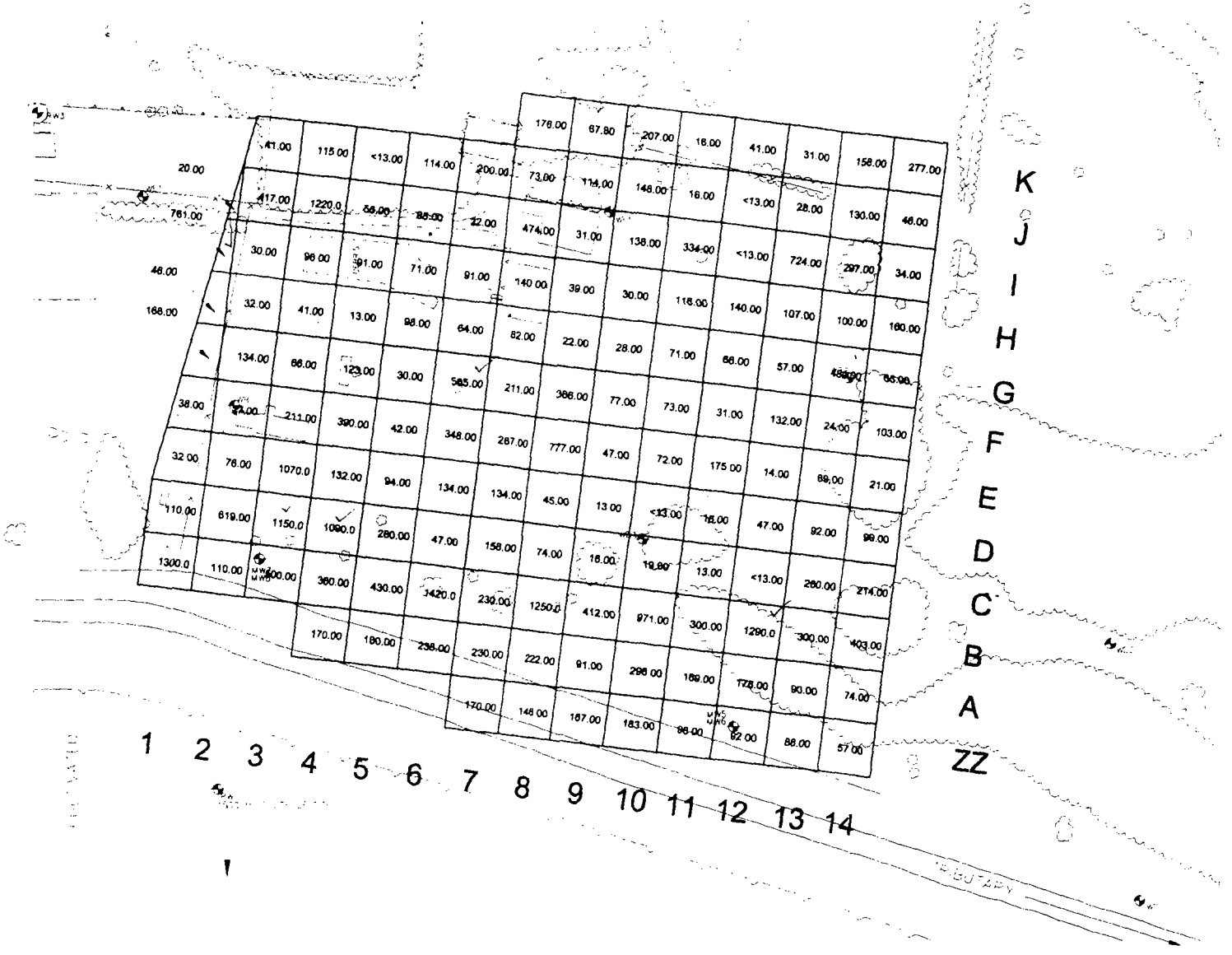
ATTACHMENT 2

VERIFICATION GRID SYSTEM

SUPERFUND SITE
TROY, OHIO

VERIFICATION GRID SYSTEM

ENTACT



LEGEND

- RESIDENTIAL WELL
- MONITORING WELL
- PIEZOMETER
- A 50'x50' PROPOSED SOIL SAMPLING GRID SYSTEM
  1
- 122.00 VERIFICATION SAMPLING RESULTS, Total Lead, mg/kg

ATTACHMENT 3

SITE INSPECTION REPORT
August 17, 2006

State of Ohio Environmental Protection Agency
Southwest District

401 East Fifth Street
Dayton, Ohio 45402-2911

TELE: (937) 285-6357
FAX: (937) 285-6249

August 17, 2006

Ms. Lolita Hill, RPM
U.S. EPA, Region 5 (HS RM-6J)
77 W. Jackson Boulevard
Chicago, IL 60604

RE: USL Site Visit

Dear Lolita,

Per your request this month, I peformed a site inspection on the United Scrap Lead site today. While there, I took photos of the site, including the fence bordering the property on the north, south, east and west sides. Attached are photos for your review that I thought would be helpful. The site map remains the same as the map submitted for the last site visit. The fence and gates all appeared to be secure without exception. I did not see any signs of trespassing (e.g. dirt bike tracks, etc.), and have not received any phone calls from home or business owners of the home located just west of the property.

The site appears to be secure. The gates are all locked and the signs are located in areas where they can easily be seen, however vegetation overgrowth obscured any signs on the north side of the property.

The following photos are attached in the email I'm sending you:

IMG_2069	Property South Border - Broken barbed wire at top of fence
IMG_2070	Property South Border - Locked gate
IMG_2071	Property South Border - Sign 1
IMG_2072	Property South Border - Sign 2
IMG_2073	Property West Border - Fence
IMG_2076	Property West Border - Locked gate
IMG_2077	Property West Border - Site view from west side
IMG_2078	Property West Border - Overgrowth (behind auto dealership)
IMG_2079	Property West Border - Back of aquaculture
IMG_2080	Property West Border - Behind private residence
IMG_2081	Property West Border - behind private residence (facing north property access road)
IMG_2082	Property North Border - North access road facing west (SR25)
IMG_2084	Property North Border - North access road facing east (RR tracks) -

showing overgrowth at fenceline
IMG_2085 Property North Border - (North access road) - Locked gate1
IMG_2086 Property North Border - (North access road) - Locked gate 2
IMG_2087 Property North/East Border - NE corner (North access road and railroad tracks)

If you have questions or require anything further, please feel free to call me at (937) 285-6054 or e-mail me at nita.nordstrom@epa.state.oh.us.

Sincerely,

Nita Nordstrom
Site Coordinator, SWDO/DERR

CC: SWDO/DERR files
Mark Allen/DERR Supervisor
CO/DERR files

ATTACHMENT 4

SITE INSPECTION REPORT PHOTOS
August 17, 2006

Figure 1. IMG - 2069 United Scrap Lead - Property South Border – Broken barbed wire at top of fence

Figure 2. IMG - 2070 United Scrap Lead - Property South Border – Locked gate

Figure 3. IMG – 2071 United Scrap Lead - Property South Border – Sign 1

Figure 4. IMG – 2072 United Scrap Lead - Property South Border – Sign 2

Figure 5. IMG – 2073 United Scrap Lead - Property West Border – Fence

Figure 6. IMG – 2076 United Scrap Lead - Property West Border – Locked gate

Figure 7. IMG – 2077 United Scrap Lead - Property West Border – Site view from west side

Figure 8. IMG – 2078 United Scrap Lead - Property West Border – Overgrowth (behind auto dealership)

Figure 9. IMG – 2079 United Scrap Lead - Property West Border – Back of aquaculture

Figure 10. IMG – 2080 United Scrap Lead - Property West Border - Behind private residence

Figure 11. IMG – 2081 United Scrap Lead - Property West Border – Behind private residence facing north property access road

Figure 12. IMG – 2082 United Scrap Lead - Property North Border – North access road facing west (SR25)

Figure 13. IMG – 2084 United Scrap Lead - Property North Border – North access road facing east (R R tracks) –showing overgrowth at fence line

Figure 14. IMG – 2085 United Scrap Lead - Property North Border – (North access road) – Locked gate 1

Figure 15. IMG – 2086 United Scrap Lead - Property North Border – (North access road) – Locked gate 2

Figure 16. IMG – 2087 United Scrap Lead - Property North/East Border – NE corner (North access road and railroad tracks)

ATTACHMENT 5

SITE REVIEW NEWS ARTICLE

Fair, to get ideas, Pence said. Board members also attend the Ohio Fair Managers Convention in Columbus each January. He said the group then looks at all the entertainment acts and promoters that have displays at the event, such as the laser show that had a two-year run at the fair.

Pence said several society members spend the entire year working toward fair week. He said sponsorships are sought throughout the year. This year the fair has more sponsors than ever before, thanks to the efforts of members.

Pence said he has a rigorous schedule in the weeks prior to the fair, often having four or five meetings a week.

"I take the week before and the week of the fair off to get everything under control," Pence said.

Both Jenkins and Pence said this year it is vitally important that the fair succeed financially and they believe people from all walks of life will enjoy the event. Handicap ramps for those with disabilities for the buildings that needed them also have been installed this year to ensure everyone's ability to attend.

"I believe the committees have brought something for everybody and that they are counting on the ride company, Poor Jacks, to put on a great performance," Jenkins said. "There will be plenty of games and rides and we're continuing Kids Day. They've brought in more things for children to do."

Pence also is asking for residents and I think we've accomplished that this year."

EPA Reviewing
United Scrap Lead Superfund Site
Troy, Ohio

U.S. Environmental Protection Agency is conducting a review of the cleanup at the United Scrap Lead Superfund site, county Route 25-A, Troy. The Superfund law requires a review at least every five years at sites where cleanup action has been started and hazardous substances remain managed at the location. These reviews are done to ensure the cleanup continues to protect human health and the environment. A review was previously done in September 2001.

This review will include an evaluation of background information, cleanup requirements, effectiveness of the cleanup and any anticipated future actions.

Lead-contaminated debris was left at the former battery casing reclaiming facility when it closed in 1983, and the soil was polluted by lead and arsenic. In 1999, several cleanup actions were performed at United Scrap: battery casings and debris were removed; contaminated soil was dug up and disposed of off-site and those areas backfilled with clean soil; the site was graded and seeded; and a fence was installed around the location.

The latest five-year review report will be available for viewing by Oct. 1. That report and other documents about the United Scrap Lead site can be read at:

Troy Miami County Public Library
419 W. Main St.
Troy

When it is finished, the report will also be available online at:
www.epa.gov/R5Super/fiveyear/fyr_index.html

For comments about the review process or questions about the site contact:

Rafael P. Gonzalez
Community Involvement Coordinator
(312) 886-0269
gonzalez.rafaelp@epa.gov

Lolita Hill
Remedial Project Manager
(312) 353-1621
hill.lolita@epa.gov

EPA Region 5
77 W. Jackson Blvd.
Chicago, IL 60604-3590
Region 5 toll-free: (800) 621-8431, weekdays 10 a.m. - 5:30 p.m.

748827

Miami Valley Sunday News 8/13/06
(Troy, OH)